SERVICE MANUAL

SANYO

STEREO
INTEGRATED AMPLIFIER

DCA 205
(EUROPE)

SPECIFICATIONS

Note:
The below mentioned specifications are mainly based on the IHF measurements standard.
They can therefore not directly be compared with specifications based on the DIN standard or other standards.

POWER AMPLIFIER SECTION

Power Output	20 watts perchannel RMS, minimum continuous power into 8 ohms load, with maximum total harmonic distortion of 0.05 % at 40 Hz – 20 kHz.

PRE AMPLIFIER SECTION

Frequency Response	
Phono (30 Hz – 15 kHz)	±1.0 dB
Aux. (20 Hz – 20 kHz)	±1.0 dB
Tape (20 Hz – 20 kHz)	±1.0 dB
Input Sensitivity/Impedance	
Phono	2.5 mV/50 kohms
Tuner	150 mV/30 kohms
Auxiliary	150 mV/30 kohms
Tape	150 mV/30 kohms
Tone Controls	
Bass (100 Hz)	±10 dB
Treble (10 kHz)	±10 dB
Loudness Control	
(at 100 Hz)	+8 dB
(at 10 kHz)	+4 dB
Output Level	
Tape Rec.	150 mV

GENERAL SECTION

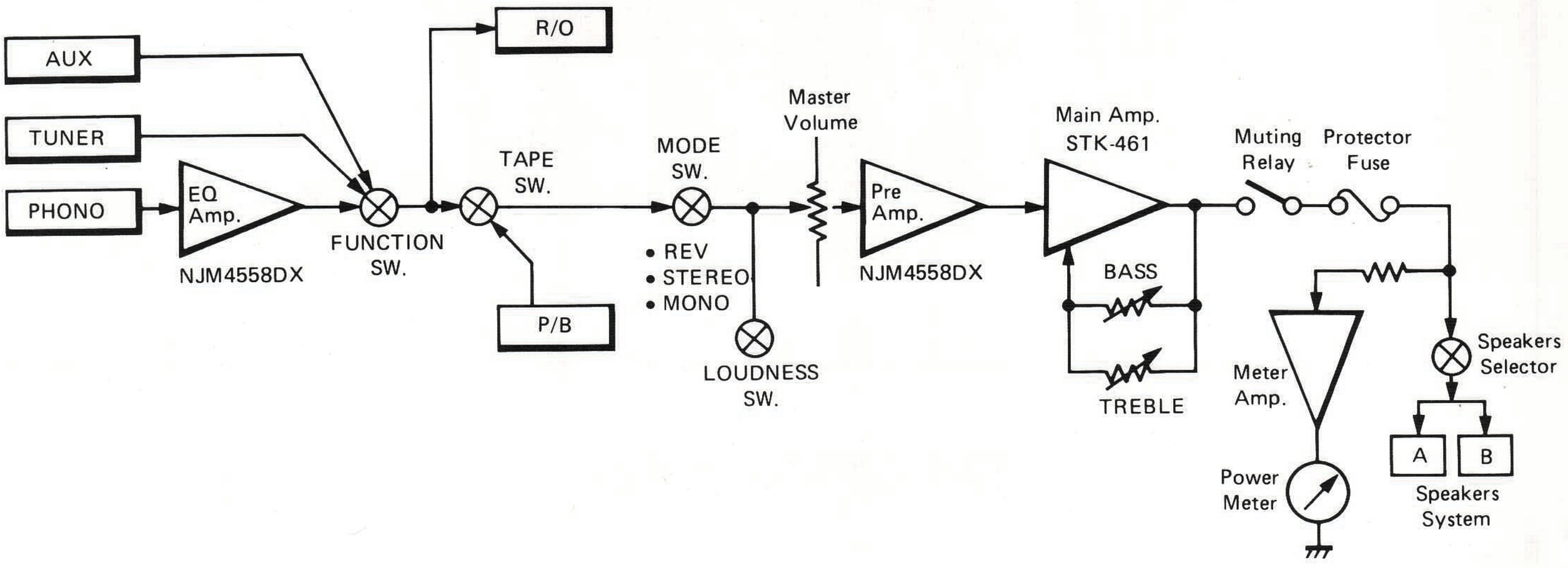
Power Source	AC: 110/220 V 50 Hz
Power Consumption	110 W
Dimensions (W) x (D) x (H)	420 x 220 x 120 mm
Weight	4.9 kg (approx.)

—Specifications are subject to change without notice.—

CONTENTS

Functional Block Diagram 1
Exploded View of Cabinet and Chassis 2
Parts List 3
EQ Amp IC NJM4558 Equivalent Circuit 4
Power Amp IC STK-461 Equivalent Circuit 4
Printed Circuit Board Assembly Parts List 5,6
Printed Circuit Board Bottom View 6,7,8,9
Point to Point Wiring Diagram 10,11
Schematic Diagram 12,13

FUNCTIONAL BLOCK DIAGRAM



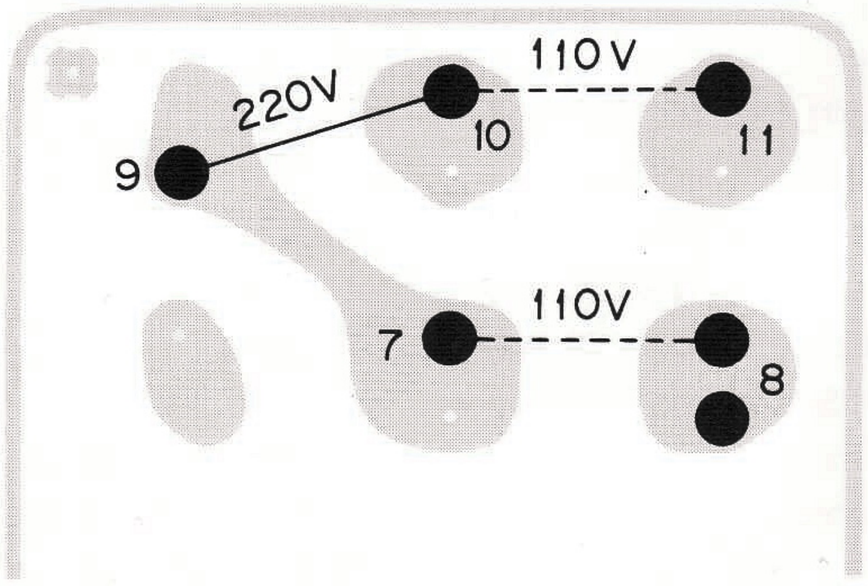
– IMPORTANT NOTE –

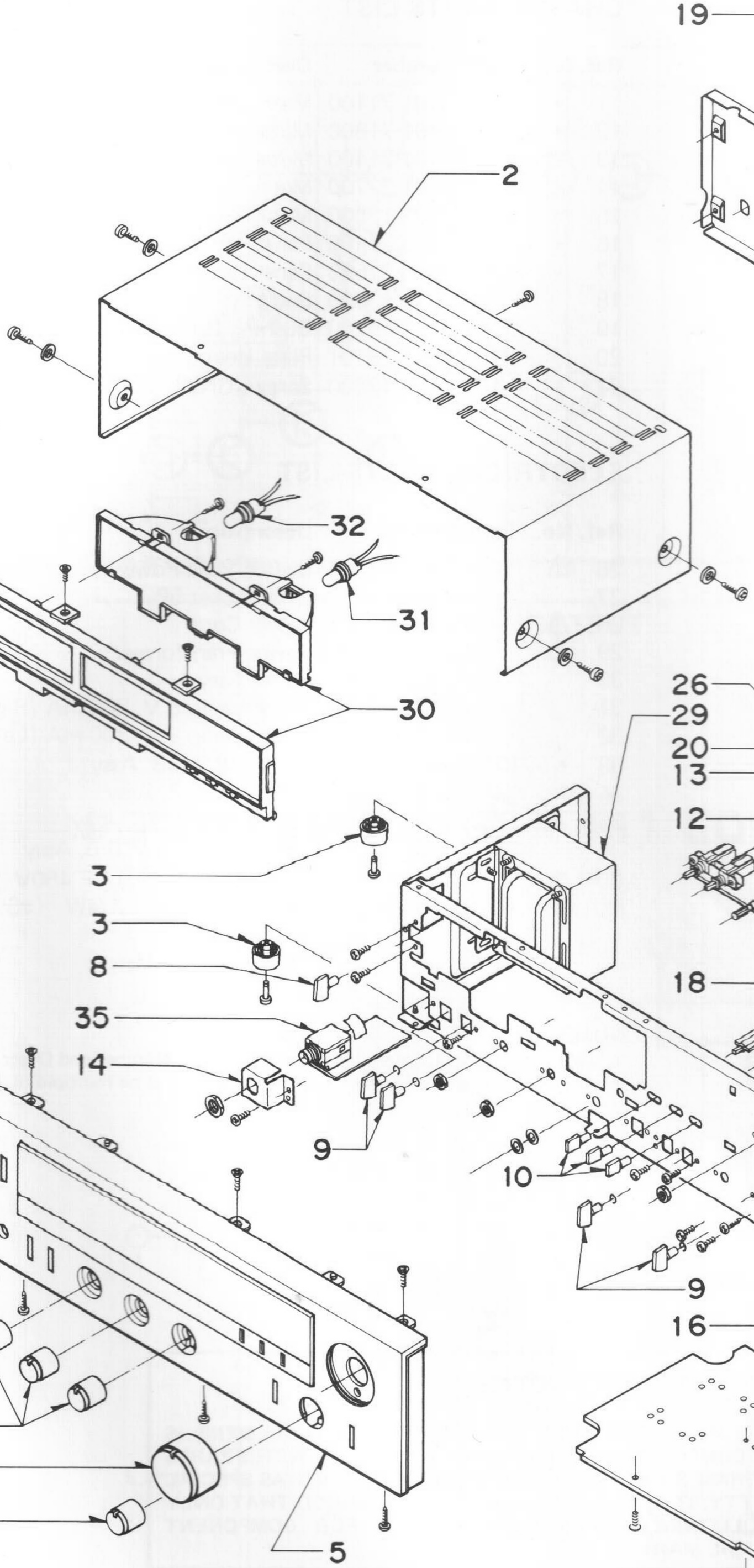
This unit is already set for operation on 220 V AC. To convert this unit to 110 V AC operation, proceed as follows.

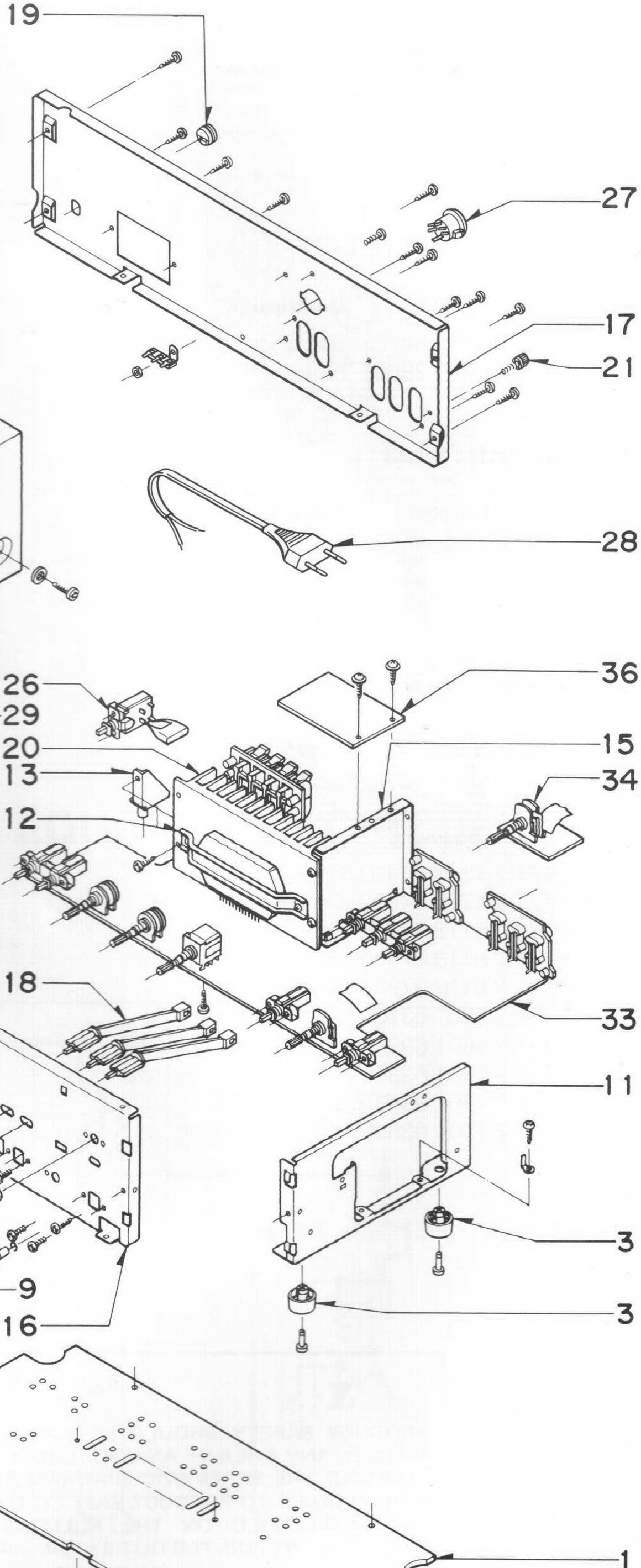
– Remove the power plug from the AC wall outlet.
– Cut the both ends (No. 9 and No. 10 sides) of the lead.
– Connect the leads equivalent to the cut one between No. 7 and No. 8, No. 10 and No. 11.

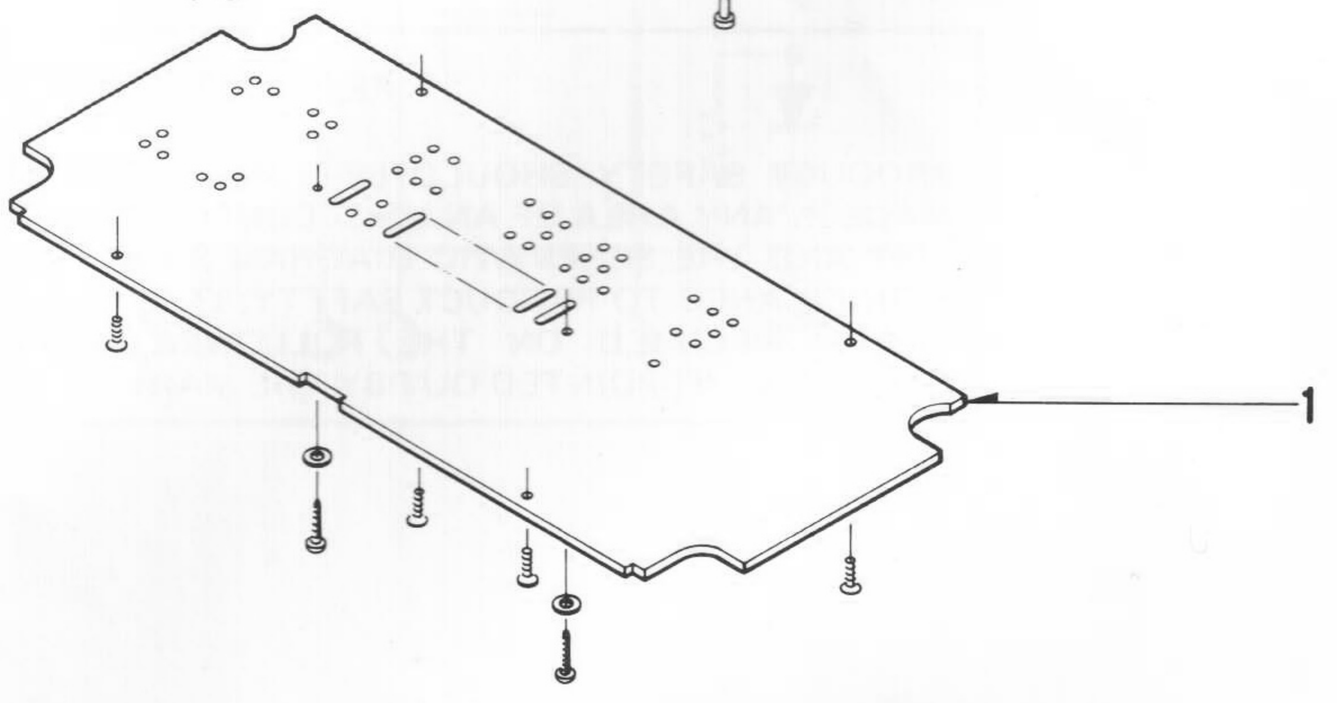
The unit is now ready for 110 V operation. DO NOT attempt to operate the unit on 220 V. Damage will result!

TERMINAL P.C.BOARD
(TOP VIEW)




2
32
31
30
3
3
8
35
14
9
10
7
6
7
5


19
27
17
21
28
36
26
29
20
15
13
34
12
18
33
11
3
3
9
16


1

POINT TO POI

AC 220V
50Hz

BLK

POWER TRANS.

VIO BLK GY YEL OR

BL RED BLK RED BL

SECONDARY FUSE P.C.B. ASS'Y
1310-4001-07180

BLK OR RED YEL GY WH

11 8 10 9

RED RED BRN

6 4 2 5 3 –

BL RED RED

SPEAKERS TE
SYSTEM-A SY
\+ – –

LEFT

RIGHT

Ⓐ

Ⓐ

BL BLK BRN YEL YEL BLK

21 19 20

BRN GN GY

5 4 6

SPEAKERS
A B

BAS

BLK

BL RED VIO BRN

CO2
0.01/500

POWER
SW.

Ⓑ

HEADPHONE P. C. B.
ASS'Y
1310-4001-05441

HEADPHONE

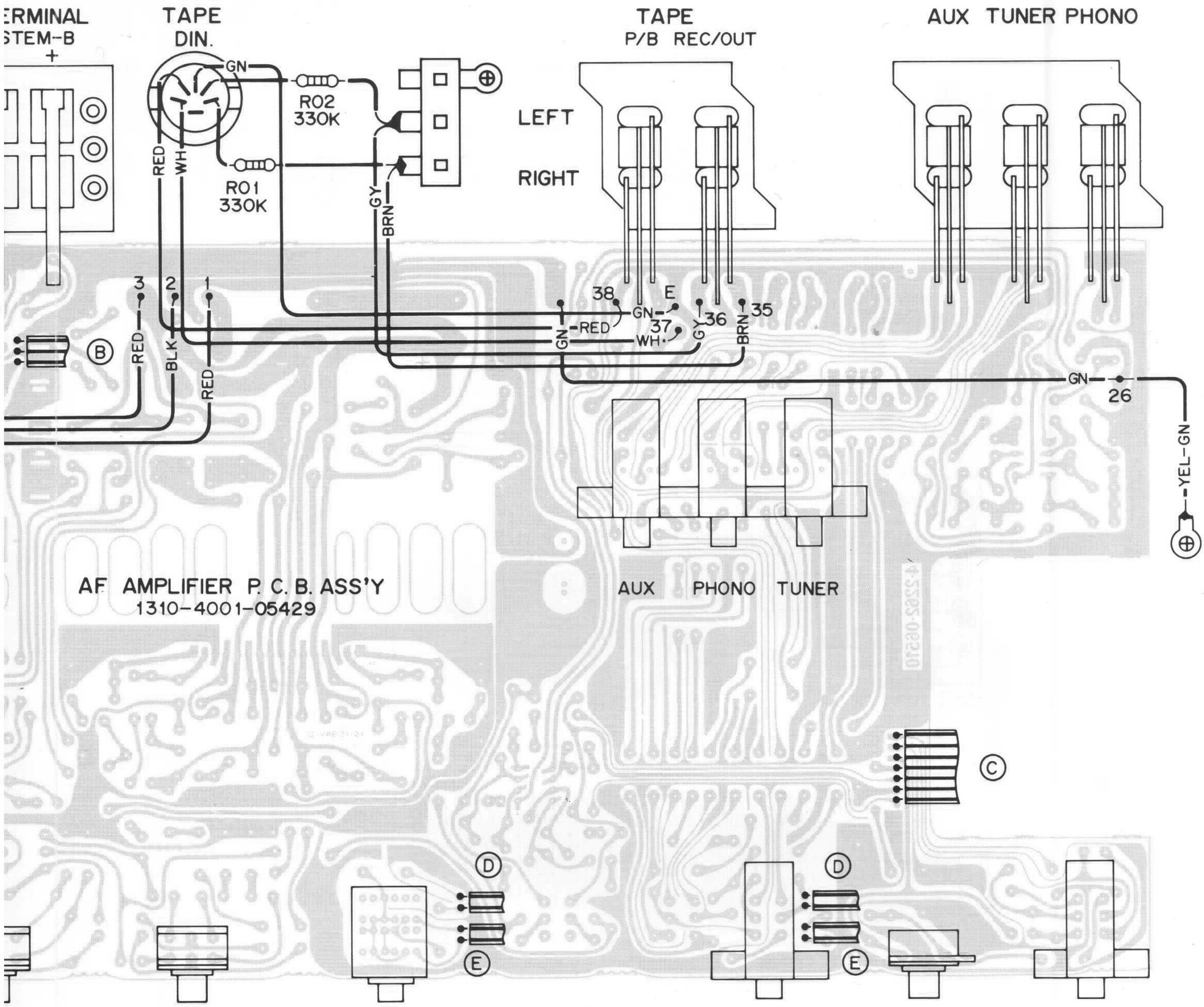
YEL YEL

BRN GN

METER LAMP
8V 300mA

POWI

NT WIRING DIAGRAM



AF AMP. P.C.B. ASS'Y
1310-4001-05429

⚠D03
S2VB20

D01, 02
RD15E x 2

ICO1
NJM4558 DX

ICO3
STK-461SA

VOLUME P.C.B.
ASS'Y
1310-4001-05430

HEADPHONE
P.C.B. ASS'
1310-4001-0544

PHONO
TUNER
AUX
R/O
P/B
LEFT
RIGHT
TAPE
MODE SW.
LOUDNESS SW.
REV./ST/MONO
VOLUME
VR02
100K-Bx2
VR01
200K-W
+32.0V
-31V
-31 V
-1.35V
32.0V
30.2V
-125mV
-120mV
(FUSE)
R73
100
R71
820/1W
R72
820/1W
R01
270
R02
270
R03
47K
R04
47K
R05
390
R06
390
R07
220K
R08
220K
R09
15K
R10
15K
R11
100K
R12
100K
R13
1.2K
R14
1.2K
R15
2.7K
R16
2.7K
R17
8.2K
R18
8.2K
R29
2.2K
R30
2.2K
R31
56K
R32
56K
R33
1K
R34
1K
R35
3.3K
1/2W
R36
3.3K
1/2W
R69 2.2K 1W
R70 2.2K 1W
C01
270P
C02
270P
C03
10/16
C04
10/16
C05
100/10
C06
100/10
C07
0.012
C08
0.012
C09
0.0047
C10
0.0047
C11
0.1/50
C12
0.1/50
C13
470P
C14
470P
C15
0.056
C16
0.056
C27
1/50
C28
1/50
C29
270P
C30
270P
C32
4.7P
C55
0.01x2
C56
47/50
C57
4700/35
C58
4700/35
C59
0.01
C60
10/50
C61
10/50
C62
0.047
D01
D02
D03
IC01
2.4mV
14.6V
3.5mV
10.2mV
-10.4mV
2.4mV
-14.5V
4.0mV
R02
330K
R01
330K
E
37
38
35
36
26

D03
S2VB20

D03

C59
0.01 x2

SECONDARY FUSE P.C.B. ASS'Y
1310 400107180

POWER TRANS

T 2.5A FUSE

T 2.5A

T 1.0A

220V

C01/
0.01

POWER SW.

POWER METER

METER LIGHTING
8V 300mA x2

R61 390

R62 390

IC04

8.2V
-8.2V
-8.2V
-1.3V
-8.2V
-1.25V
-62mV
-60mV

C51
0.01

C52
0.01

IC04
TA7318

D04, 05
IN4002 x 2

R63
15K

R64 15K

(FUSE)
R73
100

C56
47/50

R33
1K

R35
3.3K
1/2W

C31
4.7P

C33 47/50

R37
820

R39
56K

C35
100/
10

R41
3.9K

R45
4.7K

C37
10/16

C39
10/16

R51
10K

BASS
VR03
100K-C x 2

C43
0.027

R53 82K

R55
1.8K

C45
0.22

R59
1.2K

R57
560

C41
0.0022

C47
0.033

IC03
STK-461 SA

32.0V
30.2V
-31 V
-1.3V
-128 mV
-15 mV
-125mV
-20mV
-17mV
-120mV
-13 mV
-31 V
-1.35V
-141 mV

R43
0.15
2W

R49
10
1/2W

C49
0.047

R44
0.15
2W

R50
10
1/2W

C50
0.047

R38
820

R40
56K

R46
4.7K

R34
1K

R36
3.3K
1/2W

C32
4.7P

C36
100/10

C34 47/50

R42
3.9K

C38
10/16

R52
10K

C44
0.027

R54 82K

C46
0.22

C40
10/16

R56
1.8K

R60
1.2K

R58
560

C42
0.0022

VR04
100K-Cx2

C48
0.033

TREBLE

D04

(FUSE)
R76 56 1/2W

R75
120K

C53
220/
35

D05

1.6V

Q01

R74
33K

Q02

2.2V

C54
220/
10

1.6V

0.8V

D06

Q01
2SC536

Q02
2SC2274

D06
DS442

R70 2.2K 1W

R69 2.2K 1W

RY01

PROTECTOR

FUSE
T 3.15A x2

HEADPHONE
P.C.B. ASS'Y
1310-4001-05441

R65
330/1W

R66
330/1W

PHONES

SPEAKER SELECTOR

A

B

SPEAKER

A

B

LEFT

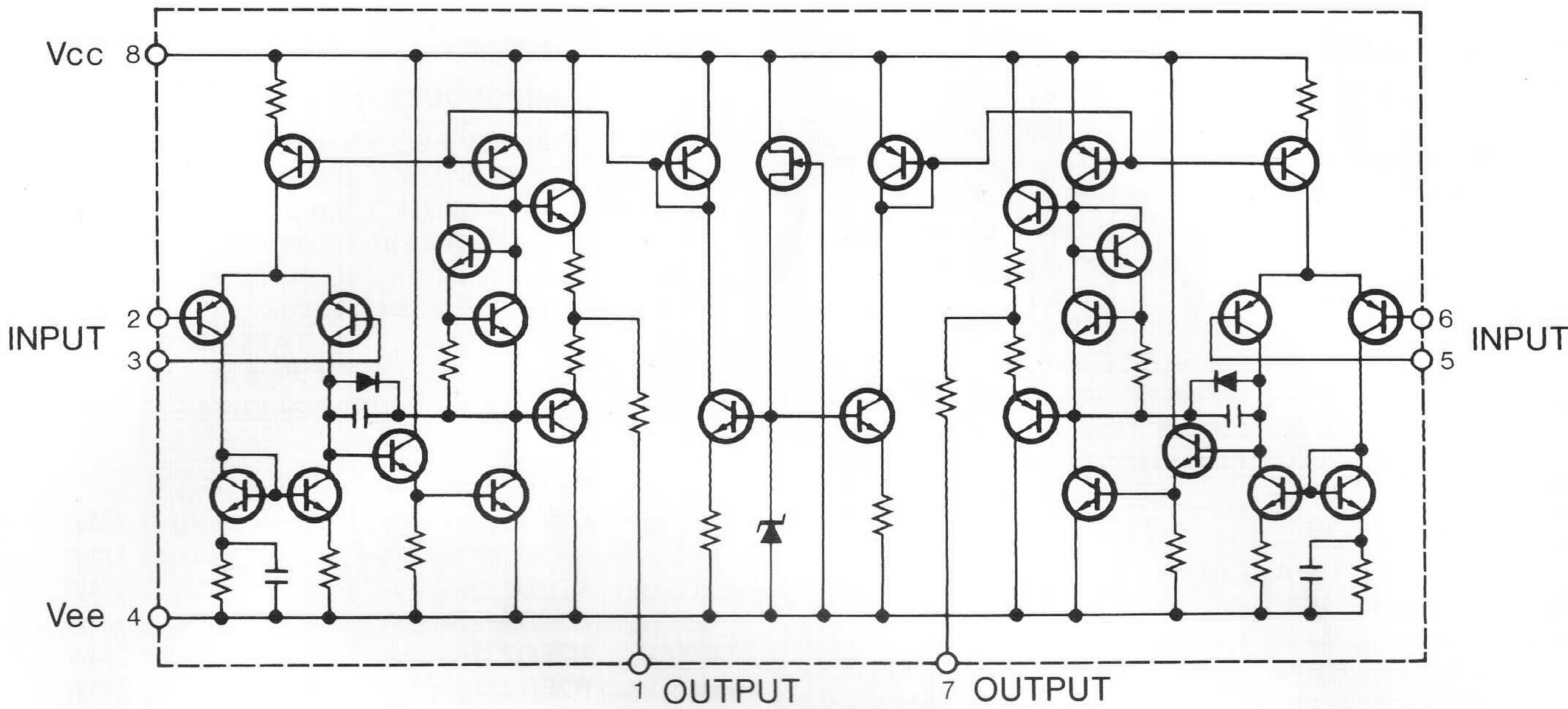
RIGHT

+ - - +

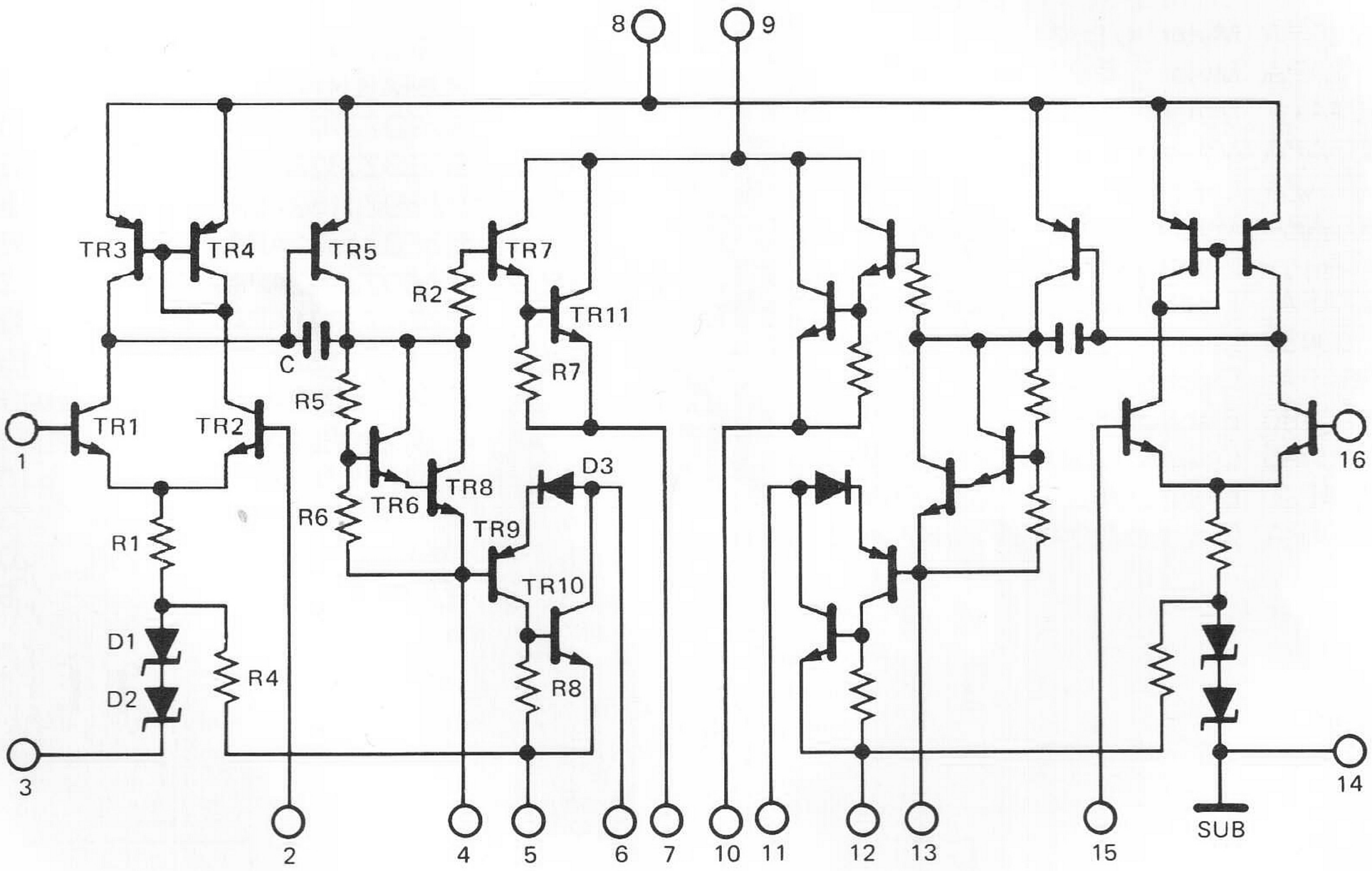
PRODUCT SAFETY NOTICE

PRODUCT SAFETY SHOULD BE CONSIDERED WHEN A COMPONENT REPLACEMENT IS MADE IN ANY AREA OF AN UNIT. COMPONENTS INDICATED BY A MARK ⚠ IN THIS SCHEMATIC DIAGRAM SHOW COMPONENTS WHOSE VALUE HAS SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. IT IS PARTICULARLY RECOMMENDED THAT ONLY PARTS SPECIFIED ON THE ATTACHED PARTS LIST BE USED FOR COMPONENT REPLACEMENT POINTED OUT BY THE MARK.

EQ AMP IC NJM4558 EQUIVALENT CIRCUIT



POWER AMP IC STK-461 EQUIVALENT CIRCUIT



VOLUME P.C.B. Assy
131 0 4001 05430

Ref. No.	Parts Number	Description
VR02	4 2222 01880	VR 100k-Bx2

HEADPHONE P.C.B. Assy
131 0 4001 05441

Ref. No.	Parts Number	Description
	4 2352 00190	Headphone Jack
	RESISTORS	
R65,66	R3AXBJ331A	Oxide Metal Film 330 1W ±5%

SECONDARY FUSE P.C.B. Assy
131 0 4001 07180

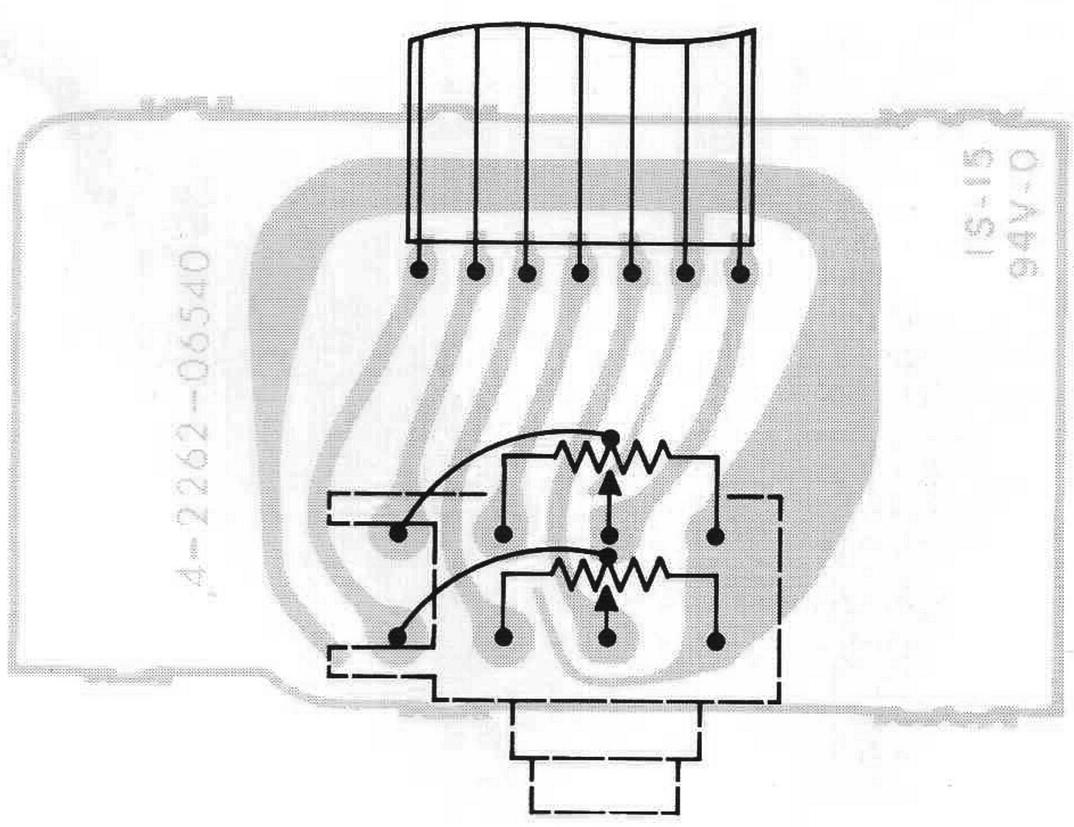
Ref. No.	Parts Number	Description
⚠	4 2349 20380	Fuse 1.0 A
⚠	4 2349 20570	Fuse 2.5 AT
	4 2352 00200	Fuse Hold Clip

NOTES:
1. Part orders must contain Model Number, Part Number and Description.
2. Ordering quantity of screws and/or resistors must be multiple of 10 pcs.

PRODUCT SAFETY NOTICE

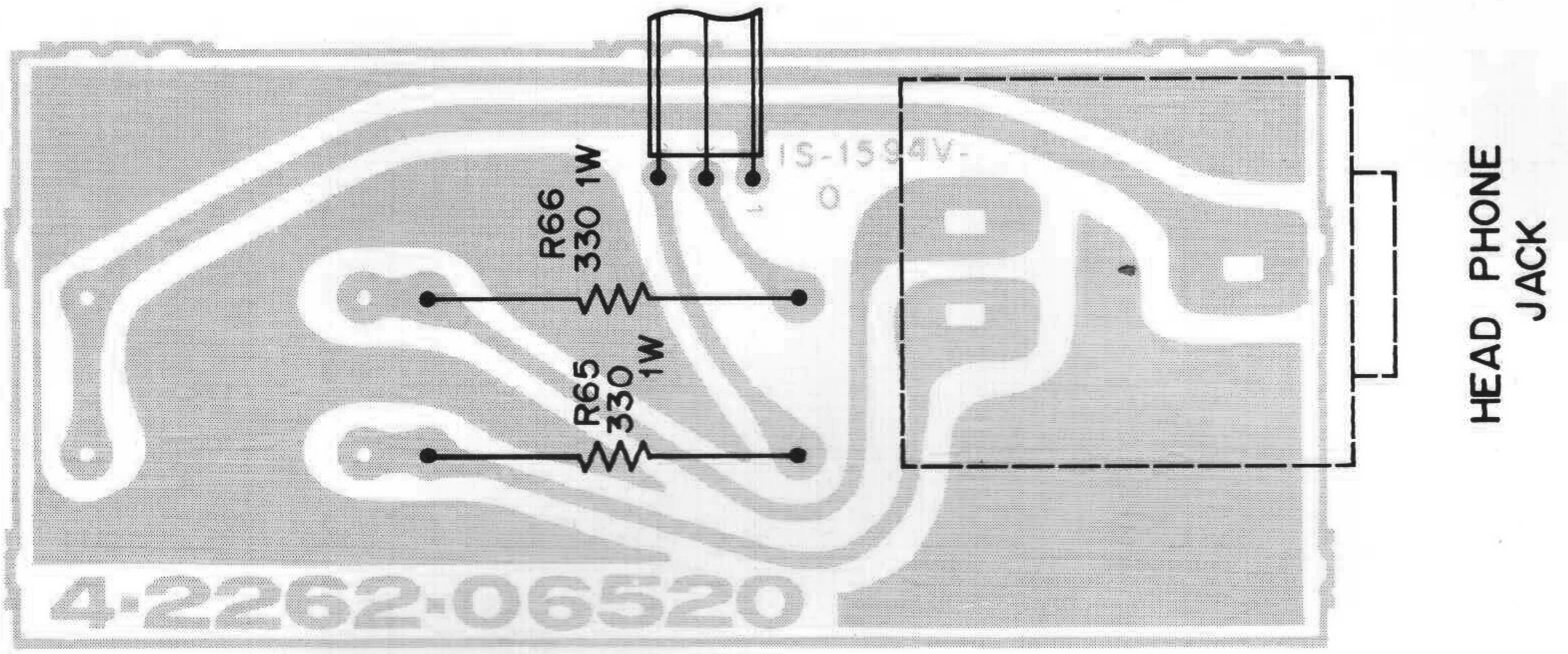
PRODUCT SAFETY SHOULD BE CONSIDERED WHEN A COMPONENT REPLACEMENT IS MADE IN ANY AREA OF AN UNIT. COMPONENTS INDICATED BY A MARK ⚠ IN THIS PARTS LIST AND THE SCHEMATIC DIAGRAM SHOW COMPONENTS WHOSE VALUE HAS SPECIAL SIGNIFICANCE TO PRODUCT SAFETY. IT IS PARTICULARLY RECOMMENDED THAT ONLY PARTS SPECIFIED ON THE FOLLOWING PARTS LIST BE USED FOR COMPONENT REPLACEMENT POINTED OUT BY THE MARK.

VOLUME P.C.BOARD
(BOTTOM VIEW)

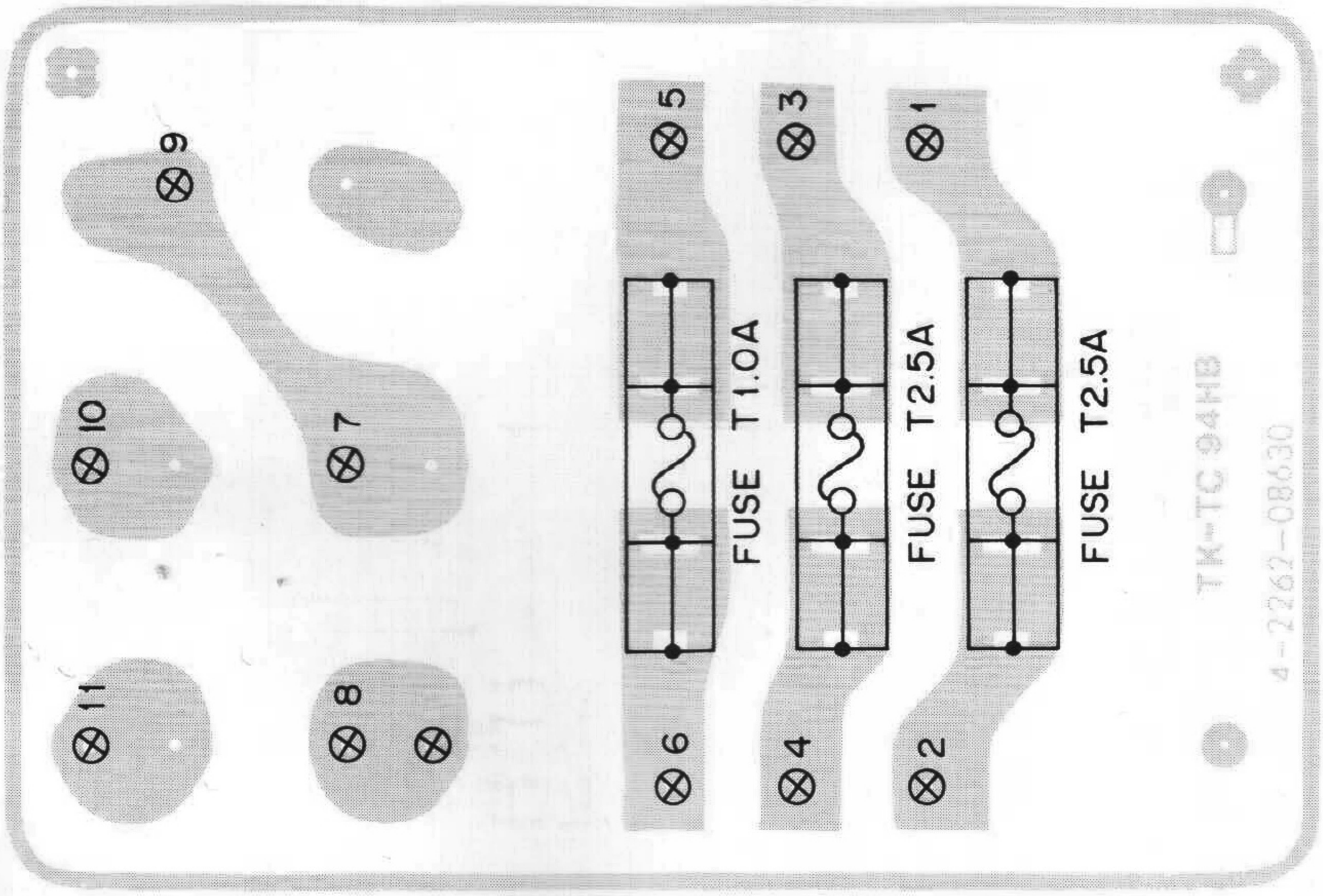


MASTER VR
VR02
100KBx2

HEADPHONE P.C.BOARD
(BOTTOM VIEW)



SECONDARY FUSE P.C.BOARD
(BOTTOM VIEW)



PHONO TUNER AUX

TAPE R/O P/B

35 36 E 37 38

C01 270P
R01 270
R02 270
C55 0.01x2
C02 270P
26
C05 100/10
C03 10/16
C04 10/16
C06 100/10
C62 0.047
IC01 NJM4558
R03 47K
R04 47K
R05 390
R06 390
R07 220K
C08 0.012
C07 0.012
R08 220K
R09 15K
C10 0.0047
C09 0.0047
R10 15K
C11 0.1/50
C12 0.1/50
R11 100K
R12 100K

C58 4700/35

R71 820 1W
D01 RD15E
R72 820 1W
D02 RD15E

TUNER PHONO AUX
FUNCTION SW.

R32 56K
C30 270P
R30 2.2K
C28 1/50

C16 0.056
R17 8.2K
R18 8.2K
C15 0.056
C13 470P
C14 470P

R15 2.7K
R16 2.7K
B
C

R14 1.2K

LOUDNESS

BALANCE VR
VR01
200KW

TAPE MONITOR SW.

4-226Z-0510

SPEAKER TERMINAL

C58 4700/35

C57 4700/35

C59 0.01x2

C50 0.047

R50 10 1/2W

FUSE T3.15A

R49 10 1/2W

C49 0.047

RY01

D03 S2VB20

C56 47/50

320 1W

5E

C61 10/50

C60 10/50

RELAY

D05 IN4002

FUSE T3.15A

R31 56K

C29 270P

R29 2.2K

C27 1/50

IC03 STK-461SA

C32 4.7P

C31 4.7P

R38 820

R37 820

R44 0.15

R43 0.15

R34 1K

R33 1K

R42 3.9K

R41 3.9K

C36 100/10

R35 3.3K 1/2W

C35 100/10

R40 56K

R39 56K

R73 100 (FUSE)

C34 47/50

R36 3.3K 1/2W

C33 47/50

R45 4.7K

R46 4.7K

R58 560

R57 560

C37 10/16

C38 10/16

C48 0.033

C47 0.033

C41 0.0022

C39 10/16

C40 10/16

R55 1.8K

R56 1.8K

C42 0.0022

R60 1.2K

R59 1.2K

C46 0.22

R63 15K

R64 15K

IC04 TA7318

R69 2.2K 1W

R70 2.2K 1W

R61 390

C51 0.01

C52 0.01

R62 390

(FUSE)

R76 56

R75 120K

Q01 2SC536

Q02 2SC2274

D04 IN4002

D06 DS442

C54 220/10

C53 220/35

R74 33K

R51 10K

R52 10K

R53 82K

C44 0.027

C43 0.027

C45 0.22

R54 82K

R13 1.2K

R14 1.2K

MODE SW.

TREBLE VR04 100KC×2

BASS VR03 100KC×2

SPEAKER SW.